

REMARKS

I. Status of the Claims

Claims 1-13 are pending.

II. Claim Rejections Under 35 U.S.C. § 103

In the Office Action, claims 1-6, 9, 10, 12, and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,613,998 to DeWitt et al. in view of U.S. Patent No. 5,460,273 to Stevens et al. and U.S. Patent No. 5,253,859 to Ricciardi. Further, claim 7 was rejected under 35 U.S.C. § 103(a) as being unpatentable over DeWitt in view of Stevens and Ricciardi and further in view of U.S. Patent No. 6,969,059 to Gafner. Further, claim 8 was rejected under 35 U.S.C. § 103(a) as being unpatentable over DeWitt in view of Stevens and Ricciardi and further in view of U.S. Patent No. 5,772,200 to Sorensen. Finally, claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over DeWitt in view of Stevens and Ricciardi and further in view of U.S. Patent No. 6,822,182 to Kechel.

A. Claims 1-6, 9, 10, 12, and 13 are patentable over DeWitt, Stevens, and Ricciardi

According to M.P.E.P. § 2143.03 (citing In re Royka, 180 USPQ 580 (CCPA 1974)), “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art.” Because DeWitt, Stevens, and Ricciardi fail to teach or suggest Applicant’s claimed combination recited in independent claims 1, 12, and 13, Applicant respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be withdrawn.

DeWitt teaches a “mail processing device 10. . . suited to process mail having an address that is difficult to read” (DeWitt at col. 2, lines 61-65) having a “feeder 30” (Id. at col. 5, line 6), an “imaging section 45” (Id. at line 28), a “buffer 50” (Id. at col. 6, line 18), a “printer 70” (Id. at col. 7, line 18), a “verifier 85” (Id. at line 39), and a “stacker 95” (Id. at line 55).

1. Claim 1

As at least partially acknowledged in the Office Action at page 3, DeWitt fails to teach or suggest a “pivotally-mounted friction belt positioned with respect to said hopper such that an item in said hopper is substantially fully engaged along its length when said pivotally-mounted friction belt is in a fully unpivoted position and such that an item in said hopper is engaged only at a leading end thereof when said pivotally-mounted friction belt is in a fully pivoted position,” as recited in claim 1. Applicant notes that the “feeder 30” of DeWitt is described at col. 4, lines 40-48 and shown in Figs. 1, 2, 4, and 5.

Ricciardi teaches a “device for controlling the pressure in a stack when stacking sheet-like articles such as envelopes that are continuously being fed into the stack.” Ricciardi at col. 1, lines 7-10. In the device of Ricciardi, the “shaft 34 supporting rollers 32a and 32b is axially biased toward the stack of envelopes 46, and forces a portion 64 of belts 26a and 26b outwardly and into contact with the last stacked envelope 50 of the stack 46.” Id. at col. 4, lines 48-51. See also Fig. 1 of Ricciardi.

However, Ricciardi fails to overcome the deficiencies of DeWitt discussed above.

It was asserted in the Office Action at page 3 that “Ricciardi teaches such an apparatus” and “it would have been obvious to one of ordinary skill in the art. . . to make

the stacking friction belts of DeWitt pivotally mounted with respect to said hopper. . . in order to counteract the ever increasing force applied by the stack against the envelope conveying belt system.” Applicant respectfully disagrees.

First, one of ordinary skill in the art would not have been motivated to modify the device of DeWitt “in order to counteract the ever increasing force applied by the stack against the envelope conveying belt system,” as asserted in the Office Action, because in DeWitt there is no “ever increasing force.” In the device of DeWitt a “conveyor 22. . . conveys a stack of mail 5 toward a feeder 30 that serially feeds the mail toward the imaging station 45.” DeWitt at col. 4, lines 12-14. See also DeWitt at Fig. 2. In addition, the “conveyor 22 comprises a flat conveyor belt disposed generally parallel to a base plate 21 of the feeding module 20.” Id. at lines 14-16. Thus, the mailpieces in DeWitt are moved on a horizontal conveyor and serially fed away from the stack with no “increasing force.”

Further, even if the device of DeWitt were modified as suggested in the Office Action, the modified device would not teach or suggest all of the limitations of claim 1. For example, as discussed above, the “shaft 34” of Ricciardi is biased so that it “forces **a portion 64 of belts 26a and 26b** outwardly and into contact with the last stacked envelope 50 of the stack 46.” Ricciardi at col. 4, lines 48-51. (Emphasis added.) Ricciardi fails to teach or suggest “a pivotally-mounted friction belt positioned with respect to said hopper such that an item in said hopper is substantially fully engaged along its length when said pivotally-mounted friction belt is in a fully unpivoted position and such that an item in said hopper is engaged only at a leading end thereof when said pivotally-mounted friction belt is in a fully pivoted position,” as recited in claim 1.

2. Claim 12

DeWitt fails to teach or suggest a “plurality of elongate O-rings rotatably mounted on said elongate discharge apparatus along said second path of travel,” a “plurality of elongate flat belts rotatably mounted on said elongate discharge apparatus along said second path of travel. . . in confronting relation to said plurality of O-rings,” “said items, upon deviating from said second path of travel, causing said O-rings to displace from respective positions of repose,” and “resiliency of each O-ring of said first plurality of O-rings snapping a trailing end of each item back into the second path of travel as each item clears the protruding rollers so that the trailing end of a lead item does not interfere with a leading end of an item in trailing relation to said lead item,” as recited in claim 12.

It was asserted in the Office Action at page 7 that “DeWitt discloses such a structure, as the belts of DeWitt can be considered O-Rings, and the structure shown in fig. 1 of DeWitt would act to snap the trailing edge of documents. Further, belts such as the ones in DeWitt have resiliency sufficient to snap the trailing edge of documents.” Applicant respectfully disagrees.

First, even if the belts of DeWitt were considered O-rings, as suggested in the Office Action, DeWitt would fail to teach or suggest a “plurality of elongate O-rings rotatably mounted on said elongate discharge apparatus” and a “plurality of elongate flat belts rotatably mounted on said elongate discharge apparatus along said second path of travel. . . in confronting relation to said plurality of O-rings.” Indeed, with the suggested interpretation, DeWitt would in fact teach O-rings in opposing relation to other O-rings, not “belts. . . in confronting relation to said plurality of O-rings,” as claimed.

Further, if the stacker 95 of DeWitt were provided with either (1) belts opposing belts, as explicitly taught by DeWitt, or (2) O-rings opposing O-rings, as suggested in the Office Action, it would not function to snap a “trailing end of each item back into the second path of travel as each item clears the protruding rollers,” as claimed.

The device of the present invention operates to snap the trailing edges, as claimed, because the O-rings and the belts have different resiliencies. Specifically, the O-rings are softer than the belts. When an item passing between the O-rings and the confronting belts encounters the protruding rollers, the O-rings deform more than the belts, and thus “displace from respective positions of repose, resiliency of each O-ring of said first plurality of O-rings snapping a trailing end of each item back into the second path of travel as each item clears the protruding rollers,” as claimed. There is no teaching or suggestion of such an arrangement, either in the explicit teaching of DeWitt or in the interpretation suggested in the Office Action, both discussed above.

3. Claim 13

As apparently conceded in the Office Action, DeWitt fails to teach or suggest an “air nozzle mounted downstream of said protruding rollers, between said protruding rollers and said nip,” “said air nozzle applying a positive air pressure to respective flaps of envelopes as respective trailing ends of said envelopes clear said protruding rollers,” and “said respective flaps are pushed into overlying relation to a main body of said envelopes so that said flaps are not rammed by the flaps of trailing items,” as recited in claim 13.

Stevens was cited in the Office Action at page 4 for its teaching of the “interchangeability of the U-shape conveyor layout to the ‘in line’ configuration.” However, Stevens, as well as Ricciardi, discussed above, fail to overcome the deficiencies of DeWitt.

Because the combined teachings of DeWitt, Stevens, and Ricciardi fail to teach or suggest Applicant’s claimed combination recited in independent claims 1, 12, and 13, as required by M.P.E.P. § 2143, Applicant respectfully submits that a prima facie case of obviousness has not been established and that the rejection should be withdrawn.

B. Claim 13 is patentable over DeWitt, Stevens, Ricciardi, and Sorensen

In the Office Action, Sorensen was not applied in a rejection of claim 13. However, Applicant provides the following comments regarding the patentability of claim 13 over Sorensen to the extent that reference is considered relevant.

As discussed above, claim 13 is patentable over DeWitt, Stevens, and Ricciardi. Sorensen teaches a “feeder for separating sheet form elements, such as envelopes, from a stack.” Sorensen at Abstract. In the device of Sorensen, “[o]ptionally, an air blower may be provided to help separate the sheet form elements in the stack and, when envelopes are the sheet form element, to keep the envelope flaps closed while the individual envelopes are separated.” Id. at col. 2, line 66 to col. 3, line 2. Sorensen further provides that “[i]f particularly heavy sheet form elements or large capacity hoppers are used. . . the hopper may be provided with a blower to direct air laterally at the stack to help separate the sheets in the stack.” Id. at col. 5, lines 55-63. Lastly, Sorensen describes an embodiment of a device having “sets of nozzles 74” providing air that “penetrates between envelopes in the stack 12.” Id. at col. 6, lines 47-53.

However, Sorensen fails to teach or suggest an “air nozzle mounted downstream of said protruding rollers, between said protruding rollers and said nip,” “said air nozzle applying a positive air pressure to respective flaps of envelopes as respective trailing ends of said envelopes clear said protruding rollers,” and “said respective flaps are pushed into overlying relation to a main body of said envelopes so that said flaps are not rammed by the flaps of trailing items,” as recited in claim 13. For example, in the device of Sorensen, air is blown laterally at the stack to help separate the sheets in the stack, as discussed above.

Thus, Sorensen fails to overcome the deficiencies of DeWitt, Stevens, and Ricciardi discussed above.

C. Other Cited References

As discussed above, claims 1, 12, and 13 are patentable over DeWitt, Stevens, and Ricciardi. Gafner and Kechel do not supply the above-noted deficiencies of DeWitt, Stevens, and Ricciardi.

Applicants respectfully submit that independent claims 1, 12, and 13 are patentable over the references applied in the Office Action. Claims 2-11 depend directly or indirectly from claim 1 and therefore should be allowable for at least the same reasons claim 1 is allowable.

III. Conclusion

Applicant respectfully requests that the Examiner reconsider this application, withdraw the claim rejections, and allow the pending claims in a timely manner.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 16-1885.

Respectfully submitted,

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